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THE UNIVERSITY OF ALBERTA

ATTITUDES OF SELECTED STUDENTS AT THE UNIVERSITY  
OF ALBERTA TOWARD PHYSICAL ACTIVITY

by



KEITH ASQUITH

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UNIVERSITY OF ALBERTA  
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Attitudes of Selected Students at The University of Alberta Toward Physical Activity" submitted by Keith Asquith in partial fulfilment of the requirements for the degree of Master of Arts.





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## TABLE OF CONTENTS

<u>CHAPTER</u>		<u>PAGE</u>
I	STATEMENT OF THE PROBLEM . . . . .	1
	Introduction . . . . .	1
	The Problem . . . . .	2
	Importance of the Study . . . . .	3
	Limitations . . . . .	5
	Definition of Terms . . . . .	5
II	REVIEW OF THE LITERATURE . . . . .	7
	Selected Literature on Attitude and	
	Attitude Formation . . . . .	7
	The Wear Attitude Inventory . . . . .	9
	The Kenyon Attitude Inventory . . . . .	19
	Other Literature on Attitude Toward	
	Physical Activity . . . . .	23
	Summary . . . . .	26
III	METHODOLOGY . . . . .	29
	The Subjects . . . . .	29
	The Instrument . . . . .	29
	Procedure . . . . .	30
	Treatment of the Data . . . . .	31
IV	RESULTS AND DISCUSSION . . . . .	33
	Reliability of the Data . . . . .	33
	Within Group Differences . . . . .	33
	Between Group Differences . . . . .	35



<u>CHAPTER</u>		<u>PAGE</u>
	Discussion . . . . .	39
V	SUMMARY AND CONCLUSIONS . . . . .	43
	Summary . . . . .	43
	Conclusions . . . . .	44
	Recommendations . . . . .	44
	BIBLIOGRAPHY . . . . .	46
APPENDIX A	Semantic Differential Test Inventory . . . . .	50



LIST OF TABLES

<u>TABLE</u>		<u>PAGE</u>
I	Hoyt Reliabilities of the Instrument . . . . .	36
II	Means and Standard Deviations of the Sub-	
	domains by Faculty and Sex . . . . .	36
III	'F' Ratios of Sex and Faculty Differences . . .	37
IV	Ranking of Subdomains by Faculty and Sex . . . .	38
V	Ranking of Subdomain Means by Sex . . . . .	38





# CHAPTER I

## STATEMENT OF THE PROBLEM

### Introduction

Why some people participate in physical activity and others do not can be assumed to be one of the most important questions in physical education today. Answers to such questions would seem to be fundamental to decisions pertaining to school physical education curricula and post-school physical recreation programs - yet we actually know very little as to why people participate. We know that people participate for different reasons. We know that they have different needs and that they are interested in different types of physical activities, but we do not really know the reasons for these differences or their causes. Because of this lack of knowledge we have proceeded to determine curricula and programs on the basis of unsupported assumptions and premises. It would appear, then, that some kind of factual research is needed to determine the reasons underlying participation and non-participation in physical activity. Many avenues of investigation are available in the fields of psychology and sociology, but probably the most attractive intuitively, is that of determining what attitudes people have toward physical activity. If we have some idea as to what a person's attitude is toward physical activity, then we may be able to speculate as to why he participates or not. If a person's attitudes influence his choice and selection of particular physical activities then such information would seem to



have importance in determining what activities should be made available to him. Also, if a person's attitudes can be influenced in a positive direction by people or events, one can assume that the right kind of events and people connected to the physical activity milieu of the person would develop a positive attitude within him and influence his decision as to whether to participate or not. This is of fundamental importance in the teaching field. The teacher's attitudes towards certain objects or events, to a large extent, influence the attitudes of his students towards the same objects or events. If the teacher has certain attitudes towards physical activity, for example, these will influence the attitudes of his students, and subsequently, influence the types of physical activity in which he becomes interested.

Though some research has already been completed in determining the attitudes of students towards physical activity, little information exists to date as to the attitudes of professional physical educators, or the attitudes of neophyte physical educators towards physical activity. It is toward the latter group that this particular study is directed.

### The Problem

The purposes of this study, then, are:

- A. To determine the attitudes toward physical activity of certain selected groups of first year students at the University of Alberta.



- B. To determine whether or not these attitudes towards physical activity differ between students enrolled in a straight Bachelor of Physical Education program and students enrolled in a Bachelor of Education program with a major in Physical Education.
- C. To determine whether or not sex differences exist towards physical activity within and between the two groups of students.
- D. To formulate a more concise and comprehensive understanding of the attitudes towards physical activity by students entering the professional programs of physical education at the University of Alberta.

### Importance of the Study

Prior to the development of Kenyon's conceptual model for characterizing physical activity (21, 22), and the subsequent construction of a moderately reliable and valid scale for measuring the multi-dimensionality of attitude toward physical activity, Wear (46) had been the only real contributor to the idea that physical activity was indeed a broad concept and that attitudes toward physical activity may be contingent upon certain specific types of activities apart from those normally pursued during the course of the ordinary physical education program. It is rather surprising, that in spite of Wear's (46) research in the early 1950's, no attempts were made before 1965 to evaluate physical activity in empirical terms. Attempts were made by Wear (46, 47) to determine attitudes toward program content, physical education in schools and universities, and indirectly to assess





certain administrative practices. In retrospect however, these studies were predicated upon a too narrow a view of physical activity but were useful in leading to the total and wide concept of physical activity as defined by Kenyon (21).

Although it may appear at first that there is little difference between the Kenyon and Wear Attitude Inventories, certain basic distinctions do exist. Whereas Kenyon's structure at the outset was designed to evaluate both male and female attitudes toward the socio-psychological characteristics of physical activity (21, 22), Wear's structure (46) for measuring attitude toward physical education as an activity course gained its reliability and validity by administration to males only. (Reliability and validity was only an assumed property when the instrument was administered to females.) A second distinction lies in their respective utility. Whereas the Wear (46) instrument attempts to classify physical education into the four wide categories of social, mental, physical and general objectives, Kenyon (21, 22) conceived physical activity as consisting of six independent subdomains: physical activity as a social experience, as health and fitness, as the pursuit of vertigo, as an aesthetic experience, as catharsis, and as an ascetic experience. Although the subdomains appear to have a degree of similarity with the Wear categories they are considerably wider and more fully defined.

Being a relatively new instrument, very few studies have been completed with the Kenyon scales. It is partially with the intent of adding to the knowledge already gained by the use of the Kenyon Attitude Inventory regarding student attitudes toward physical activity that



this study was undertaken, as well as being concerned with the effect of attempting to answer questions as to the structure of attitudes toward physical activity.

### Limitations

- A. The sampling of subjects was limited to first year students registered in either the Faculty of Physical Education or the Faculty of Education.
- B. The information gained from this study was limited to the extent to which the Kenyon concept of six dimensions covers the total domain of physical activity.

### Definition of Terms

Attitude: "...a latent or nonobservable, complex, but relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object, whether it be concrete or abstract." (22:567).

Physical Activity: "...physical activity denotes organized, (structured) non-utilitarian (in an occupational or maintenance sense), gross human movement, usually manifested in active games, sports, calisthenics, and dance." (21:97)

Bachelor of Physical Education Students: First year students actively pursuing the course leading to a Bachelor of Physical Education degree.

Education-Physical Education Students: First year students actively pursuing the course leading to a Bachelor of Education degree with a



major in Physical Education.

Domain: Domain is the term used to describe physical activity as represented by the six dimensions of physical activity.

Subdomain: Subdomain is the term used to describe each of the six dimensions forming the domain of physical activity i.e. social, health and fitness, vertigo, aesthetic, catharsis and ascetic.



## CHAPTER II

### REVIEW OF THE LITERATURE

The order and composition of this chapter will be as follows:

1. Selected literature on attitude and attitude formation.
2. The Wear Attitude Inventory:
  - A. Description
  - B. Information
  - C. Criticisms
3. The Kenyon Attitude Inventory:
  - A. Description
  - B. Information
  - C. Criticisms
4. Other literature on attitude toward physical activity.
5. Summary.

#### 1. ATTITUDES AND ATTITUDE FORMATION

In the last fifty years there have been many attempts made at defining the concept of 'attitude', but one which is frequently cited as being the most representative of this concept is that by Allport:

"An attitude is a mental and neural state of readiness organized through experience, exerting a directive or dynamic influence upon the individual's response to all situations with which it is related." (4:810)

This definition is only one of many (9, 14, 17, 22, 35, 36, 42).

Allport (4:293-4), for example, postulates a great similarity between traits and attitudes. Traits are suggested as not being linked





to one object or a specific class of objects whereas attitudes are linked to a specific object or class of objects and are less general than traits. Cattell (15) sees ergs, (constitutional dynamic source traits or drives), and sentiments, (environmental mold, dynamic source traits), as being variables which have an inferred relationship with attitude. Sabora and Mitchell (35:92) in their attempt at defining attitude, link attitude to the dispositional concept of motives, although they concede that an attitude differs from a habit in that habit is a learned motor response. Attitudes, they maintain, are related to ideas and thinking, and are conscious, emotional and purposive, i.e. they constitute motives. Jones and Gerard (19:159) treat the attitude concept as a syllogistic conclusion, as the involvement and combination of a belief with a pertinent or relevant value. In addition, they attempt to classify six dimensions of variability of attitude (19:162-3). Their suggested dimensions of variation are direction and intensity, saliency, strength, cognitive differentiation, action orientation and verifiability.

When talking about the stability of attitudes many writers express the view that they are relatively stable, although they may be frequently in a state of flux (19, 22, 36). Jones and Gerard (19) extend this view and imply that the more central the attitude to the individual the more resistant to change it tends to be. This capacity to resist change helps to influence other cognitive activities such as learning and remembering.

The role to which Jones and Gerard (19:162) attribute attitude in the learning process is similarly subscribed to by Scott (36:308) and



Campbell (14:470). Campbell sees attitudes as playing an important role in learning and teaching in that they form a basic part of an individual's readiness to learn. Bruechner (9) also tends towards the opinion that:

"...attitudes are not innate but are learned or acquired. A given attitude may be a generalisation growing out of numerous specific experiences. The more highly emotionalized and dramatic the situation the more likely it is that a fundamental attitude will be established." (9:471)

Kenyon, in an attempt to reflect these contemporary views (9,14, 17, 22, 35, 36, 42), defines attitude as:

"...a latent or non-observable, complex, but relatively stable behavioral disposition reflecting both intensity and direction of feeling toward a particular object whether it be concrete or abstract." (22:567)

This definition was suggested by Kenyon as an explanation of the cognitive, affective and action tendency components of attitude and as an acquired behavioral disposition. This definition, albeit eclectic, can be seen as representative of the positions cited in (4, 14, 19, 35, 36).

## 2. THE WEAR ATTITUDE INVENTORY

### A. Description

Due to the fact that little work in physical education using prepared attitude scales had been attempted in the twenty years prior to 1951, Wear (46) evolved an Attitude Inventory designed to evaluate attitude toward physical education as an activity course. The criteria



used in constructing the Inventory were the following eight professionally stated aims of the physical education program. These were:

- a. Physical well being
- b. Muscular strength and endurance
- c. Total physical and muscular endurance
- d. Acquisition of neuromuscular skills
- e. Resources for recreation, for use of leisure time now and in later life
- f. Mental health, emotional control and poise
- g. Social relationships
- h. Safety aspects, providing for better control of body and better use of safety measures.

By using the above eight aims or objectives of the physical education program as criteria, statements were formulated and selected which, "might represent verbal expressions of feeling concerning the value of these outcomes and the extent to which physical education was believed to bring about their attainment." (46:116)

Graduate and undergraduate physical education classes, books and periodicals were used initially to compile a total of 289 statements. These included

- a. statements reflecting the feelings of the graduates and undergraduates toward physical education
- b. statements which had been made by 'others' toward physical education, and
- c. statements which the graduates and undergraduates thought other individuals, both favorable toward and opposed to





physical education, might make.

The list of 289 statements were subjected to Wang's (45:367) suggested criteria for writing attitude statements from which 122 were selected.

"As a result of an analysis of responses from a preliminary try-out of these items on 75 college students, which included an item analysis of the 122 items, several items were dropped and a few new ones added. The new list which now contained 120 items, was called the Physical Education Attitude Inventory." (46:117)

Item scoring on the inventory was from one to five on a Likert type scale with a score of five considered as an indication of a favorable attitude toward physical education. Wear states that, "...whatever the individual items measure it is assumed that a total score on the Inventory is an index of attitude toward physical education as an activity course..." (46:117)

To gain validity for his instrument, Wear administered his 120 item Inventory to 494 first year male students in required physical education classes at the State University of Iowa. In addition, the students were asked to complete a self-rating type questionnaire to determine their own general attitude toward physical education. It was suggested that the additional information would serve to give support to the validity of the Inventory.

Regarding the reliability of the instrument, Wear stated:

"The reliability of the Inventory as determined by the split halves technique was 0.96 for 472 cases which became 0.98 when raised by the Spearman-Brown formula. The product moment correlation between Inventory scores and graphic self-ratings for 464 individuals who rated themselves was plus 0.88." (46:118)



A short form of the Inventory was created by taking 58 items from the Physical Education Inventory which had indices above the median of 0.58 reliability coefficient. Upon investigation, Wear (46:121) found that at least one item from each of the eight areas of the objectives or aims of physical education had been retained in the new list of statements. This representation was also evident in his final 'Short Form of the Inventory' which consisted of 40 items.

"The Short Form had a split halves reliability of 0.94 for 272 cases. This becomes 0.97 when raised by the Spearman-Brown formula. The product moment correlation between Short Form scores and the graphic self-ratings was 0.80 for 268 cases." (46:121)

In his summary, Wear (46) stated that both the 120 statement Inventory and Short Form Inventory:

"...seem to tap approximately the same aspects of attitude which are believed to be related to the outcomes which authorities in the field of physical education generally agree should result from a well balanced and well conducted program of physical education." (46:122)

Concluding, Wear (46) recommended that other instruments should be constructed for evaluating attitude toward specific types of activities, toward competitive and non-competitive activities and toward individual and team activities. The effect upon attitudes of physical education programs, administrative measures, instruction methods, lectures, movies, and reading assignments were also suggested as areas worthy of attention.

Regarding his recommendations, Wear (47) constructed an Equivalent Forms Attitude Scale which he proposed for use in seeking attitude changes resulting from brief experiences such as listening to a talk



on physical education, watching a demonstration, viewing a film, or taking part in some activity. The two forms each consisted of 30 statements taken from the list of 120 statements contained in his original Physical Education Attitude Inventory (46). Each form was comprised in differing proportions of the eight main objectives to be expected from the physical education program. The 30 statements in the Two Forms called 'A' and 'B' were later classified into the following three categories:

- a. physiological/physical
- b. mental/emotional
- c. social/general

Using a sample of 100 male university freshmen, Wear found that the correlation between the paired scores on the two forms was 0.96. On the basis of these findings Wear concluded that his 'Equivalent Forms Attitude Scale' was a reliable instrument for use in determining attitude changes resulting from such experiences as are outlined above.

## B. Information

Since 1951 a number of studies have been completed using the Wear Attitude Inventory. Bell, Waters and Staff (6) used the Wear Short Form Attitude Scales in conjunction with a checklist of informational questions regarding the background of their subjects and a set of questions based on the objectives of physical education. The study involved 684 Freshmen and 173 Senior Women at the University of Michigan. The investigators concluded that physical education as an activity





course, contributes to the social, physical and mental health of students.

Broer (7), in evaluating a basic skills curriculum for women students of low motor ability at the University of Washington, used the Wear Inventory together with the Humiston Motor Ability Test and the American Council on Education Test, on a group of Freshman Students. Her findings agreed with Wear's assumption that his Attitude Inventory was a reliable and valid instrument for use with women. Broer, Fox, and Way (8) in a later study found that similar percentages of students to those responding in the Bell, Waters and Staff (6) study reacted to the three categories of physical health, social growth and development and mental health. It was assumed therefore that physical education was a contributor to these three areas of development.

In 1960, Brumbach and Cross (11) gave the Wear Inventory to all physical education lower-division males at the University of Oregon. In addition to the Short Form, the subjects completed an information questionnaire which sought information pertinent to their physical education background, type of high school attended and service in the armed forces. Results indicated that 'attitude' objectives in the physical education programs in high schools in this area were being accomplished satisfactorily. An on-going nation-wide emphasis on improving youth fitness was cited by Brumbach and Cross (11) as possibly having been responsible for the high scores achieved by their respondents. Also suggested as a reason for the high scores was that out of the total of 938 subjects tested, 669 had reported that they had participated in an interscholastic athletic program. Other findings





were that athletes reacted more favorably to many of the statements in the Inventory and that smaller schools may produce graduates with better attitudes toward physical education. The reason given for the latter statement was that there would be higher total student involvement in athletics in a smaller school than in a larger institution.

Brumbach (10) in a longitudinal study concerning the effect of a special conditioning class upon student attitudes toward physical education reported that the attitude of physical education teachers/instructors is all important in the formation of positive attitudes toward physical education. Level of performance was also found to be contingent upon the attitude manifested by the instructor/teacher. Student-teacher rapport was suggested as possibly being a significant factor in the improving of attitudes toward physical education.

Campbell (13) used the Wear Short Form Inventory (46) to investigate whether the size of the high school attended, college of matriculation and required physical education played a significant part in student attitudes toward physical education. He found no significant variation in attitude scores toward physical education within the subgroups being studied. Significant differences were found however between the subset formed by the physiological and the social items and the subset created by the mental-emotional and general items of the Wear Attitude Inventory. Campbell did, however, state that he considered the Wear Inventory to be reliable and valid and that attainment of attitudes according to expressed objectives of physical education can be measured by the Wear Inventory. A later study by Campbell (14) using the Wear Short Form Inventory showed no significant



relationship existed between attitudes toward physical education as measured by the attitude inventory and the ability to perform selected physical fitness items.

Keogh (23) reporting on a study concerning the general attitudes toward physical education of 266 college men and women concluded that men and women were not different in their stated aims and attitudes toward physical education. He also found that the social, physical and emotional values of physical education were supported, but discovered conflict in student's opinions regarding the relative value of a physical education program in the school curriculum. In 1963, using the Short Form 'A' Inventory to discover the extreme high and low attitudes toward physical education of 266 subjects, Keogh (24) selected 69 males and females from his original group of 266 to complete further general information questions. Both the males and females in this subgroup of 69 subjects were found to react in a similar and positive manner, at both the high and low extremes, to the values of physical education as professionally stated in the school program. Keogh mentions the 'halo effect' as being the cause of consensus and states that this could be:

"...related to the make-up of the Wear or similar attitude statements or part of an American tendency to subscribe to idealized objectives or outcomes whilst still remaining critical of the efforts to reach these goals." (24:32-33)

By way of concluding, Keogh remarks that although the high group were physically active as expected, the low group also showed a high degree of interest in physical activities. The low group, however, were very critical of their high school physical education program. Keogh assumes



'social pressure' as the cause for the unexpectedly high activity level of the low group. It is, he says, "characteristic, socially, for a young adult to participate at least nominally in a certain amount of physical activity." (24:33)

### C. Criticisms

The problems created by an instrument such as the Wear Inventory have been outlined by several people who have worked with or have investigated its possibilities. A brief review of the more important criticisms follows:

Semotiuk (37) stated that research literature which is concerned with the subject of attitude toward physical activity/education often suffers from three short-comings. These are:

- a. Sufficient attention is not usually paid to the characterization of physical activity/education in its broadest sense. Usually the domain under inquiry is restricted and narrow (e.g. team game competition, sports or physical education).
- b. Tests are seldom based on the appropriate test construction procedure such as item analysis and psychological scaling techniques.
- c. Where proper techniques have been followed there usually is a failure to account for the possible and indeed likely multidimensionality of the domain in question e.g. Wear (46, 47), Adams (1) and Richardson (33).

Although Wear (46) assumed that his Inventory was a valid instrument for use with women and high school students, it remained for





Broer (7) and Bell, Waters and Staff (6) to test the assumed validity of the instrument when used with women. Regarding the instrument's validity when used with high school students, Campbell (14) discovered that one school involved in his study possessed students who had difficulties reading and interpreting some of the statements. It would seem that there is a need for further qualification in terms of standardization regarding the instrument's suitability for administration to certain groups.

Squires (39) in his study showed concern over the narrowness of the studies completed in the fields of physical activity and physical education. Most studies, he stated, deal with selected populations. The populations are usually either male or female college students, and the studies mostly attempt to determine the attitude toward required physical education at the college level. It would also seem that the Wear Inventory suffers from the limitation of not being able to measure the social influences which Squires sees as important to the formation of both positive and negative attitudes toward physical activity and physical education. Outside opportunities in sports, appreciation of the purposes of physical education and activities, parental attitude and teacher attitudes and interests are not evaluated. Squires, as Wear (46), saw a need for further investigation of the effects of movies, television, sports personalities, magazines, etc. in the formation of attitudes. These areas only recently have assumed importance to the researcher in physical activity and physical education.





### 3. THE KENYON ATTITUDE INVENTORY

#### A. Description

It was partially to the end of overcoming some of the difficulties presented by the Wear (46, 47) Inventories that Kenyon (21) developed a conceptual model for characterizing physical activity as a socio-psychological phenomenon. The model was based upon the assumption (21:97) that physical activity could be reduced to six levels or subdomains. A further assumption (21:98) was that each subdomain had a perceived and instrumental value for the individual. The six subdomains of the model were presented as follows:

"...physical activity perceived as (1) a social experience, (2) health and fitness, (3) the pursuit of vertigo, (4) an aesthetic experience, (5) catharsis, and (6) an ascetic experience." (22:568)

In the development of the six subdomains of the hypothesized model, a universe of content was identified and defined.

Kenyon proposed that if his structure was to have merit as a model serving to represent the sociopsychological characteristics of physical activity, two conditions had to be met:

- a. each subdomain had to be univocal i.e. internally consistent, and
- b. that the various subdomains had to be relatively independent of one another.

In effect the model had to possess construct validity. To accomplish this end Kenyon (21) collected data from college freshmen consisting of responses to Likert-type attitude statements which were thought to be representative of the subdomains used in the hypothesized model.



Many of these stimuli were revisions of statements used to test previous forms of the model. Separate inventories were used for the males and females, and by a process of item analysis the best statements were saved. These statements were then subjected to Hoyt's analysis of variance to determine the internal consistency of each subdomain. Coefficients were maximized by rescaling the a priori weights of the best items using a reciprocal averages procedure devised by Baker (5).

## B. Information

Apart from the one major work which has been completed using the Kenyon Attitude Inventory (20), little has been reported in the literature of other studies using his instrument. It is however worth mentioning that in his cross-cultural survey (20) Kenyon used a semantic differential approach to acquire attitude and body-image data. The purpose of trying the semantic differential approach was to take advantage of the simplicity of this technique and to minimize the cross-national differences in word meanings and interpretation. The study which involved approximately 3,500 secondary school children from Canada, England, Australia and the United States of America found that:

- a. Attitude toward physical activity is a function of the perceived instrumentality and value associated with the activity in question.
- b. Positive attitudes in secondary school children are those toward physical activity characterized as a social experience, as health and fitness, as an aesthetic experience and as catharsis.



- c. Attitude was found to be a function of sex in that females were found to possess a more positive attitude toward physical activity characterized as a social experience, as health and fitness, and as an aesthetic experience, while males were found to possess more positive attitudes than females toward physical activity perceived as the pursuit of vertigo, and as an ascetic experience.
- d. Older children are more disposed toward physical activity as an ascetic experience and as catharsis than are younger children, and
- e. The nature and degree of primary and secondary involvement were found to be a function of a complex set of behavioral, dispositional and situational factors.

Semotiuk (37), who assisted Kenyon with the Canadian aspect of the study, found that the Canadian respondents expressed favorable attitudes toward physical activity as a social experience, aesthetic experience, as a means for catharsis and for health and fitness. The girls' choice of the aesthetic subdomain was found by Semotiuk to be significantly higher than the boys. Both boys and girls indicated that they most frequently participated in physical activity for social experience, for health and fitness and for the release of tension. He also found that boys participated in activity for thrills and involving some risk whereas the girls in his study did not.

The use of the semantic differential approach in the study was stated by Semotiuk to have moderately high reliability and was considered by him to be quite useful in detecting differences between





attitudes.

The only other reported study which has used the Kenyon Inventory is the one by Alderman (3) who made a sociopsychological assessment of attitude toward physical activity in champion athletes representing Canada in the Pan American Games. Alderman reported similarities and differences with the earlier study conducted by Kenyon (20). The females in both studies ranked the subdomains almost identically, whereas the male student group ranked social experience number one and physical activity as an aesthetic experience number four, almost opposite to the male athletes in Alderman's study. Between the sport subgroups, male water polo and soccer players regarded physical activity as a cathartic experience rather than ascetic. Other findings were related to the high ranking of the subdomain of social experience by boxers; the low ranking of health and fitness by the gymnasts and field hockey players; the low ranking of physical activity as an ascetic experience by both boxers and track and field performers in all the subdomains, and the generally high attitude strength of the women's volleyball team in all the subdomains.

### C. Criticisms

Apart from the obvious length of the Kenyon Attitude Inventory it would appear that the task which Kenyon originally undertook has to a certain extent been accomplished. Criticism however may be directed to the 'Classification of Sports' area of his test battery, in that sports rather than being classified totally by the respondent, to whom





they have meaning in a particular way, are assigned their 'meaning' by the Code Manual. As a result of this, the perceived instrumentality of this section of the inventory loses a certain amount of credibility. It is suggested that even more insight could be gained into the meaning of certain activities if responses were treated as perceived totally by the individual and not by some external criteria.

A short-coming of the Inventory which Kenyon himself recognises (20) is that not all the dimensions of physical activity may yet have been accounted for. Semotiuk (37) suggests that the test items could be modified so as to include and incorporate different populations, e.g. adults or junior high school students. Judging however from the results obtained from Alderman's study it would seem that there is an apparent validity for using the instrument with adult champion athletes. Whether this validity would hold for junior high school children remains to be seen.

#### 4. ADDITIONAL LITERATURE PERTAINING TO ATTITUDE TOWARD PHYSICAL ACTIVITY

Attitudes, their measurement and their respective strengths, have been the subjects of a great amount of research since the development by Thurstone (42) of a rationale by which the researcher could, in effect, construct scales to measure the overt behavior commonly associated with attitudes. The interest created by Thurstone's methods for constructing scales to measure attitudes in 1929, and three years later the development of a second set of scales for measuring attitudes by Likert (26), was sufficient to warrant the interest and attentions of



researchers in the field of physical education. This section presents the findings and recommendations of some of the studies conducted during the past forty years on attitude toward physical activity and physical education - studies which used either a Likert or Thurstone type of instrument with which to gain their results.

Alden (2) and Bullock (12) found that unfavorable attitudes toward physical education in females were created by the inconveniences caused by having to change for physical education, the failure of schools to develop relevant skills, and uninteresting activity requirements resulting in a consequent dislike of the program. They also noted that generally unfavorable attitudes toward physical education were combined with a general dislike for the physical education instructor. Bell (6), Brumbach and Cross (11) and Broer (7) in their respective studies remarked upon the value of a good student-teacher rapport if there were to be formation of favorable attitudes toward physical education. In spite of a possible lack of good teacher-student relationship, positive attitudes toward physical education have been noted. Leman (25) sees attitudes as being capable of developing through social influences and the power of individual success and achievement. Mista (28) relates that students gaining inter-scholastic letters and those students who had participated in extra-school activities were the students who had a high positive regard for physical education and physical activity. Neale, Sanstroem and Metz (30) in addition to the findings of Mista, found that students who rated themselves higher than average in physical skills exhibited a favorable attitude toward physical activity. Although in conflict with Campbell's (14) position regarding attitude



and size of school attended, Mista (28) stated that the size of school attended had a significant part to play in the development of attitudes. Size of town she added has no relationship with attitude development, but individuals from a farming background seemed to project a more favorable attitude than those who are not.

Studies concerning the number of years exposure to a physical education program by individuals and the level of enjoyment gained from a particular program have been pointed out as being of possible great importance in attitude formation, e.g. Bell et al (6), Broer (7), Brumbach and Cross (11), Mista (28), Zimmerman (51). As an added factor, Mista (28) suggested that the number of hours of participation in physical activity per week may also be a criterion in the development of attitudes. Marshall (27) stated that the initial attitude toward physical activity is developed as a by-product of the school curriculum and, in particular, that part which is physical education. He sees the subject of physical education as being that which embraces all aspects of life which are meaningful and significant to the students and, therefore, arouses their interest and whole-hearted cooperation. He further states that physical education programs should be flexible enough to cater to the varying needs of the pupils, both as individuals and as members of society. Williams (50) views attitudes and their development as being dependent upon the physiological, sociological, age and nutritional characteristics of the individual. He sees the importance and possibility of persons with like characteristics indulging in and enjoying physical activity at their own level. Sutton-Smith and Roberts (40), Sutton-Smith, Roberts and Kozelka (41) and Roberts and





Sutton-Smith (34) place more emphasis on sociological variables than does Williams (50). Similarly Clarke (16) and White (49) emphasize that physical activity is basically due to non-psychological variables. These non-psychological variables upon which they believe choice of physical activity depends are parental differences in wealth and ecologic and group opportunity.

Sapora and Mitchell (35) and Ulrich (43) are not as extreme in their opinions of how attitudes toward physical activity may be formed. Sapora and Mitchell infer that, to some people, a particular activity may seem like work, whilst to others, the activity may be pleasurable. Inherent in any individual, they say:

"...is an awareness of what kind of consequences are apt to result from the activity affects one's attitude toward it. And effort in which motives and desires are satisfied directly and immediately are apt to appeal to us." (35:124)

Ulrich (43) presents a similar position when she states:

"That no matter what particular aspect of physical activity is practised, whether the stressors (causes of stress) are physical, psychic or social in nature, the human organism in reacting to the stressor and resolving the stress does not appear to differentiate among the stressors." (43:253)

## 5. SUMMARY

On the basis of the foregoing review of the literature an attempt has been made:

- a. To present a selection of contemporary ideas regarding the definition and composition of attitudes. The opinion extended generally, conceives of attitudes as being possessive of





cognitive, affective and action tendency components directed at a psychological object. The literature also suggests that attitudes are organized as acquired behavioral dispositions, are relatively stable, but are frequently in a state of flux.

- b. To give a description of the Wear and Kenyon Inventories and to point out their respective merits and weaknesses regarding reliability, validity and instrument construction. Studies using the Wear and Kenyon Attitude Inventories were also presented in an effort to illustrate these points.
- c. To remark upon the finding that students generally tend to accept the values and objectives of physical education, whilst at the same time they seem to be sceptical regarding whether these objectives and values are accomplished by the physical education program.
- d. To show that there is consensus of opinion regarding the importance of a good student-teacher relationship in creating positive attitudes toward physical education and physical activity.
- e. To point out the conflict regarding the size of school and the part it is assumed to play in the formation of attitudes.
- f. To stress the fact that school is generally believed to be a major factor in the development of attitudes, particularly toward physical activity.
- g. To comment on the apparent narrowness of studies both in physical education and physical activity which have been



conducted up to the present time and to reiterate the comments and suggestions of others regarding areas which require our investigation, e.g. populations other than student bodies, the media and the effect of vicarious reinforcement, the teacher and parental effect on attitude development etc.



## CHAPTER III

### METHODOLOGY

The main purpose of this study was to formulate a more precise and comprehensive understanding of the attitude toward physical activity in selected groups of first year students at the University of Alberta.

#### The Subjects

The subjects used in this study were 120 first year students who were in attendance at the University of Alberta during the 1970-71 academic year. A total of 60 students, 30 male and 30 female were randomly selected from their respective populations and assigned to one of the two groups. The two groups consisted of those students who had registered in the Faculty of Physical Education and were pursuing a course of study which would eventually lead to the degree of Bachelor of Physical Education, and those students who had registered in the Faculty of Education and were pursuing a course of study which would eventually lead to a Bachelor of Education degree with a major in Physical Education.

#### The Instrument

The Kenyon Attitude Inventory (22), designed to measure attitude toward physical activity, is based on a multi-dimensional model consisting of six subdomains:



- A. Physical activity as a social experience, which comprises those games, sports and other forms of recreation that are participated in primarily by persons who wish to use them as media for social intercourse.
- B. Physical activity for health and fitness, which is characterized by its contribution to the maintenance of one's health and fitness.
- C. Physical activity as the pursuit of vertigo, which is perceived as those activities providing, at some risk to the participant, excitement and an element of thrill by the means of speed, acceleration, swift or rapid changes of direction and exposure to dangerous situations, with the participant remaining in control.
- D. Physical activity as an aesthetic experience, which is characterized by its aesthetic value to the participant. It covers those activities which are thought of as possessing beauty and grace in human movement.
- E. Physical activity as catharsis, comprising those activities that are undertaken to provide a release from tensions of various kinds.
- F. Physical activity as an ascetic experience, covers those activities that require long periods of strenuous and even painful training. These activities are usually concerned with severe competition and demand a deferment of pleasure.

### Procedure

The attitude inventory was administered to the 120 first year students during the second term of the 1970-1971 academic year. In completing the inventory, each subject was required to rate each of the





subdomain concepts against a series of eight descriptive semantic differential scales, each based on a seven-alternative Likert type attitude statement format. The rating was done on the basis of what meaning each particular concept had for the respondent.

### Treatment of the Data

The scores for each individual in each of the 48 items on the semantic differential scales were collected. The means, standard deviations and Hoyt reliabilities were computed based on the original weightings of each test item. The scores were re-weighted by a reciprocal averages program (5).

Briefly the reciprocal averages program (5) employs a priori set of item response weights assigned by the investigator to the response items to initiate an iterative process which produces a weighting scheme. The weighting scheme in turn maximizes the internal consistency of the instrument.

In this study the a priori weightings for each item on the semantic differential scale ranged from one through seven or seven through one depending upon which item responses were assumed by the investigator to be important in describing the underlying concept offered by the instrument. Items on the semantic differential which the respondent adjudged to have no relation to the concept to be evaluated received equal weightings. Responses to items which differentiated between high and low scoring respondents received weights which had a large range of values. This range of values related to the degree of



discrimination of the item responses. Consequently persons disagreeing with a concept received a low weighting for their responses and those persons who regarded a particular concept with favor received a high weighting for their responses. The mean score for each item response was then computed and the number of non-zero mean item response scores counted and placed in ascending order. Weights were then assigned by a seven point scale to the column of mean scores. The lowest group of mean item response scores being assigned one and so on up to seven. Hoyt reliabilities were then re-calculated based upon the old and new sets of weights and if found to differ by less than .02 the iterative process was terminated. Upon termination of the iterative process the derived weights were used to calculate the means and standard deviations of the attitude scores on each of the subdomains. These means were then subjected to analysis of variance after which 'F' ratios were calculated to determine the possible presence of significant differences among the six attitude means within a given group. Further analyses of variances were made and 'F' tests run to determine whether or not there was a significant difference between the four subgroups either by Faculty or by Sex. Total group differences were also investigated. In the analyses of variances conducted with the subgroups and total groups, the comparisons of attitude means were made by applying the Scheffe method for making complete sets of comparisons. This method uses as its criterion that the probability of rejecting the null hypothesis when it is true, Type I error, should not exceed .01 or .05, for example, for any of the comparisons made.



## CHAPTER IV

### RESULTS AND DISCUSSION

#### Reliability of Data

The Hoyt reliabilities (i.e. the measures of internal consistency) of the responses made by the subjects in this study were high. The reliability coefficients for each group were as follows: Bachelor of Physical Education Males,  $r = 0.963$ , Bachelor of Physical Education Females,  $r = 0.946$ , Education Physical Education Males,  $r = 0.961$ , and Education Physical Education Females,  $r = 0.938$ .

#### Within Group Differences

Bachelor of Physical Education Males. The mean scores for this group in each one of the six subdomains, were ranked in the following descending order:

1. Vertigo:  $M = 32.23$
2. Aesthetic Experience:  $M = 32.13$
3. Health and Fitness:  $M = 31.73$   
Catharsis:  $M = 31.73$
4. Social Experience:  $M = 31.66$   
Ascetic Experience:  $M = 31.66$

'F' Ratios (Table III) indicated no statistically significant differences between these means.

Bachelor of Physical Education Females. The mean scores for this group in each one of the six subdomains, were ranked in the following



descending order:

1. Social Experience:  $M = 37.60$
2. Catharsis:  $M = 36.60$
3. Vertigo:  $M = 36.10$
4. Health and Fitness:  $M = 35.80$
5. Aesthetic:  $M = 35.36$
6. Ascetic Experience:  $M = 34.30$

'F' Ratios (Table III) indicated no statistically significant differences between these means.

Education Physical Education Males. The mean scores for this group in each one of the six subdomains, were ranked in the following descending order:

1. Vertigo:  $M = 35.86$
2. Social Experience:  $M = 35.63$
3. Health and Fitness:  $M = 34.40$
4. Aesthetic Experience:  $M = 34.36$
5. Ascetic Experience:  $M = 34.16$
6. Catharsis:  $M = 34.13$

'F' Ratios (Table III) indicated no statistically significant differences between these means.

Education Physical Education Females. The mean scores for this group in each one of the six subdomains, were ranked in the following descending order:

1. Vertigo:  $M = 37.06$
2. Aesthetic Experience:  $M = 36.66$
3. Health and Fitness:  $M = 36.56$





4. Social Experience:  $M = 36.53$
5. Catharsis:  $M = 35.80$
6. Ascetic Experience:  $M = 35.13$

'F' Ratios (Table III) indicated no statistically significant differences between these means.

#### Between Group Differences

Only two statistically significant differences between group means were found. These were as follows:

1. In the subdomain of physical activity as a social experience there were significant difference between the total group of male students as compared to the total group of female students. The female mean of 37.06 was significantly higher (at the .05 level) than the male mean of 33.64 (Tables III and V).

2. In the subdomain of physical activity as a social experience there was a significant difference between the Bachelor of Physical Education Male group as compared to the Bachelor of Physical Education Female group. The female mean of 37.60 was significantly higher (at the .05 level) than the male mean of 31.66 (Tables II and III).

3. In the subdomain of physical activity as catharsis there was a significant difference between the total group of male students as compared to the total group of female students. The female mean of 36.20 was significantly higher (at the .05 level) than the male mean of 32.93 (Tables III and V).

4. In the subdomain of physical activity as catharsis there was a significant difference between the Bachelor of Physical Education Male



TABLE I HOYT RELIABILITIES OF THE INSTRUMENT

GROUP	a priori	Maximized
Male B.P.E.	0.912	0.963
Female B.P.E.	0.897	0.946
Male Ed.P.E.	0.926	0.961
Female Ed.P.E.	0.866	0.938

TABLE II MEANS AND STANDARD DEVIATIONS OF THE SUBDOMAINS BY FACULTY AND SEX

	B.P.E. (M)	B.P.E. (F)	Ed.P.E. (M)	Ed.P.E. (F)
<u>Subdomains</u>				
Social	$\bar{x}$ 31.66	$\bar{x}$ 37.60	$\bar{x}$ 35.63	$\bar{x}$ 36.53
	S.D. 6.99	S.D. 8.04	S.D. 9.78	S.D. 8.03
Health	$\bar{x}$ 31.73	$\bar{x}$ 35.80	$\bar{x}$ 34.40	$\bar{x}$ 36.56
	S.D. 11.61	S.D. 5.95	S.D. 10.28	S.D. 9.16
Vertigo	$\bar{x}$ 32.23	$\bar{x}$ 36.10	$\bar{x}$ 35.86	$\bar{x}$ 37.06
	S.D. 13.11	S.D. 12.66	S.D. 7.98	S.D. 7.76
Aesthetic	$\bar{x}$ 32.13	$\bar{x}$ 35.36	$\bar{x}$ 34.36	$\bar{x}$ 36.66
	S.D. 12.01	S.D. 6.42	S.D. 8.84	S.D. 9.94
Catharsis	$\bar{x}$ 31.73	$\bar{x}$ 36.60	$\bar{x}$ 34.13	$\bar{x}$ 35.80
	S.D. 7.17	S.D. 9.64	S.D. 12.01	S.D. 5.92
Ascetic	$\bar{x}$ 31.66	$\bar{x}$ 34.30	$\bar{x}$ 34.16	$\bar{x}$ 35.13
	S.D. 10.35	S.D. 8.90	S.D. 8.64	S.D. 8.93



TABLE III 'F' RATIOS OF SEX AND FACULTY DIFFERENCES

	Faculty Differences				Sex Differences			
	B.P.E. V	B.P.E. (M)	B.P.E. (F)	Males V Females	B.P.E. (M)	B.P.E. (F)	Ed.P.E. (M)	Ed.P.E. (F)
	Ed.P.E.	Ed.P.E. (M)	Ed.P.E. (F)					
<u>Subdomain</u>								
Social	0.91	3.26	0.34	5.07*	9.35*		0.15	
Health	0.99	1.12	0.14	3.26	2.91		0.73	
Vertigo	1.41	1.67	0.12	1.71	1.35		0.34	
Aesthetic	1.03	0.66	0.36	2.53	1.68		0.89	
Catharsis	0.25	0.88	0.15	4.18*	4.93*		0.46	
Ascetic	0.97	1.03	0.12	1.13	1.12		0.18	

\*Statistically significant at the .05 level ('F' Ratio of 4.01 required).



TABLE IV RANKING OF SUBDOMAINS BY FACULTY AND SEX

Rank	B.P.E. (M)	B.P.E. (F)	Ed.P.E.(M)	Ed.P.E.(F)
1	Vertigo	Social	Vertigo	Vertigo
2	Aesthetic	Catharsis	Social	Aesthetic
3	Health	Vertigo	Health	Health
4	Catharsis	Health	Aesthetic	Social
5	Social	Aesthetic	Ascetic	Catharsis
6	Ascetic	Ascetic	Catharsis	Ascetic

TABLE V RANKING OF SUBDOMAIN MEANS BY SEX

Rank	Males (Total Group)	Females (Total Group)
1	Vertigo 34.04	Social 37.06
2	Social 33.64	Vertigo 36.58
3	Aesthetic 33.24	Catharsis 36.20
4	Health 33.06	Health 36.18
5	Catharsis 32.93	Aesthetic 36.01
6	Ascetic 32.91	Ascetic 34.76





group as compared to the Bachelor of Physical Education Female group. The female mean of 36.60 was significantly higher (at the .05 level) than the male mean of 31.73 (Tables II and III).

### Discussion

The Hoyt reliability coefficients ranged from 0.94 to 0.96 indicating excellent internal consistency of the results. This reliability was higher than the Kenyon (20) and Semotiuk (37) studies, and gave evidence that, at least in the case of reliability, the semantic differential technique used in the Kenyon Inventory is a worthwhile scientific instrument for the measurement of attitude toward physical activity.

The central purpose of this study was to determine whether attitudes toward physical activity differed between students enrolled in two different professional programs. Except for four minor differences, it would appear that students entering the Education-Physical Education program at the University of Alberta have the same attitudes toward physical activity as students entering the Bachelor of Physical Education program. In addition, the absence of significant differences within the groups suggests that their attitudes toward physical activity are inclusive of more than one subdomain or dimension. The fact that females regard physical activity in a similar manner to males, in professional programs, might make program planners pause when orienting curricula toward particular sex variables. Except for the reversal of the dimensions of social experience and aesthetic experience, the two



Education-Physical Education groups were substantially similar in their ranking of the subdomains (Table IV). The two Bachelor of Physical Education groups, however, showed no coherent similarities other than the sixth ranking of ascetic experience. One more observation of interest in this connection is the middle ranking given health and fitness by the four groups. It would seem that students entering the professional programs in physical education at the University of Alberta, at any rate, place greater value on the dimensions of physical activity other than physical fitness.

Although no significant differences were detected within the groups between each subdomain, and although only four significant differences were detected between groups in certain subdomains, a comparative analysis of the ranking of the subdomains by each group (Table IV), in the light of past research (3, 20, 37) is of considerable interest for the professional physical educator. Probably the most interesting departure this study took from previous studies is in the top ranking of vertigo by three of the groups. In the large Kenyon (20) study, the secondary school students in all four countries consistently ranked the subdomain of social experience as having the greatest meaning for them, and in the Alderman (3) study the champion athletes consistently ranked aesthetic experience as their top choice. This would indicate that males and females entering Physical Education, with the obvious intent of professional preparation, seem to have different views of regarding physical activity, at least in terms of the meaning it has for them, than the students and athletes that they will be teaching and coaching. The Bachelor of Physical Education females, on the



other hand, place a similar value on physical activity as a social experience as the students in the Kenyon (20) study, although their fifth place ranking of aesthetic experience is quite inconsistent with the meaning this subdomain has for female athletes.

The low ranking of the ascetic experience subdomain by the four groups is consistent with its low ranking by the Kenyon (20), Semotiuk (37) and Alderman (3) subjects. Apparently, considerable agreement exists between reasonably diverse groups of people that physical activity as an ascetic experience does not hold a very strong meaning for the individual. This consistently low attitude toward physical activity and activities requiring long and strenuous training can be viewed in several ways. One view could be that modern young people are not particularly interested in allying hard work with physical activity; a view reasonably in opposition to the traditional Protestant work ethic that has governed considerable physical education thinking in the past. Another slightly more realistic view is that the dimension has no construct or real validity for the respondents, i.e. its real meaning is difficult for them to grasp, and thus they tend to rate it low. Regardless of interpretation, however, the dimension, and the attitudes of young people towards it, requires some careful examination by physical educators.

One other observation deserves comment. Although the Wear Attitude Inventory reported upon earlier was designed to measure attitude toward physical education, there does seem to be an area of consistency between certain findings in this study and that of Keogh (23) who used the Wear Inventory to analyse general attitudes toward physical





education. Keogh (23) found that men and women possessed similar attitudes to one another, but found that there was conflict in their opinions regarding the relative values of physical education. In the present study it was found that there were no within group differences and only four minor differences, significant at the .05 level, between the sexes with respect to attitude toward physical activity.

Great care must be taken in making the general assumption that the Kenyon and Wear Inventories are capable of measuring the same gross attitude quality in males and females. The findings from this study, however, would seem to suggest that as far as discriminating between male and female attitudes toward both physical activity and physical education, both Inventories do seem to possess this ability. In addition, both Inventories seem capable of allowing respondents to make judgements regarding the worth of certain aspects of either physical activity or physical education, depending upon which Inventory is used.



## CHAPTER V

### SUMMARY AND CONCLUSIONS

#### Summary

One hundred and twenty University of Alberta first year students (30 Bachelor of Physical Education males, 30 Bachelor of Physical Education females, 30 Education Physical Education males, and 30 Education Physical Education females) responded to the Kenyon Attitude Inventory. The purpose was to examine their attitude toward physical activity as a function of their sex and faculty. With respect to the inventory used, responses by the subjects were achieved by evaluating what meaning each of the following subdomains had for each of the subjects as individuals.

- a. Physical Activity as a Social Experience
- b. Physical Activity for Health and Fitness
- c. Physical Activity as the Pursuit of Vertigo
- d. Physical Activity as an Aesthetic Experience
- e. Physical Activity as Catharsis
- f. Physical Activity as an Ascetic Experience.

From analysis of variance tests the only statistically significant differences found to exist were:

- a. Sex differences between the male and female Bachelor of Physical Education students on the subdomain of physical activity as a social experience, and
- b. Sex differences between the male and female Bachelor of Physical Education students on the subdomain of physical activity as catharsis.



## Conclusions

Based on the results obtained from the data the following conclusions seem warranted:

1. Subjects in each of the four groups failed to significantly differ in their attitudes towards each of the six subdomains, thus indicating that physical activity is characterized by all of the six subdomains rather than by any single one. No preference emerged from the data collected in this study.
2. Only minor differences were found between groups. This suggests that regardless of faculty, students entering professional physical education programs at the University of Alberta have similar attitudes toward physical activity.
3. Except for statistically significant differences between the Bachelor of Physical Education Male group and the Bachelor of Physical Education Female group in the subdomains of catharsis and social experience, no real or definitive differences were found on the basis of sex.

## Recommendations

1. That the study be repeated with the same group of students during their second, third, and fourth years of attendance at the University of Alberta. This procedure would help to determine whether or not their attitudes vary as a function of time and exposure to their particular programs.
2. That a similar study examine attitudes toward physical



activity in university students not in professional physical education programs in order to determine whether professional predilection influences attitudes.

3. That a study be conducted amongst students in the elementary, secondary and recreation branches of physical education in the Department of Physical Education in order to determine whether choice of professional route has any marked effect on attitudes toward physical activity.





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APPENDIX A  
SEMANTIC DIFFERENTIAL TEST INVENTORY



# EXPERIMENTAL PROJECT M

PHASE 1 - SEMANTIC DIFFERENTIAL SCALES OF ATPA AND BI BAT (rev.) 3/30/66

## INSTRUCTIONS

The purpose of this inventory is to obtain an estimate of your attitude toward, and your interest in, physical activity.

This is achieved by presenting several concepts, each one of which may be a different way of viewing physical activity for you. Your response to each of these concepts is determined by what meaning it has for you. You will judge each against a series of descriptive scales.

For example:

REFeree  
One who oversees an athletic contest

If you feel that this particular concept in the box is VERY CLOSELY  
RELATED to one END of the scale:

you mark either

either  $\swarrow$  here or here  $\searrow$

fair  $\frac{X}{1} : \frac{}{2} : \frac{}{3} : \frac{}{4} : \frac{}{5} : \frac{}{6} : \frac{X}{7}$  unfair

If REASONABLY RELATED:

you mark either

either                      here                      or                      here

fair                      : X :                      :                      :                      : X :                      unfair

1                      2                      3                      4                      5                      6                      7

If only SLIGHTLY RELATED:

you mark either

either                      here                      or                      here

fair                      :                      : X                      :                      : X                      :                      :                      unfair

1                      2                      3                      4                      5                      6                      7

If you consider the concept to be:

1. NEUTRAL on the scale, or
2. Completely UNRELATED to the scale

you mark as follows:

s follows:

here  
↓

fair    :    :    :    X    :    :    :    unfair

1     2     3     4     5     6     7



### Instructions (continued)

As you proceed through the inventory it is important to keep in mind the following points:

1. Place your check-marks in the middle of spaces, not on the boundaries:

THIS NOT THIS  
X  
: : X : : :

2. Be sure you check all eight scales for each concept - do not omit any.
3. Never put more than one check-mark on a single scale.
4. The numbers under each scale are merely to assist in analysis of the data by computers. Do not pay any attention to them.
5. Sometimes you may feel as though you've had the same item before on the test. This will not be the case, so do not look back and forth through the items.
6. Do not try to remember how you checked similar items earlier in the test.
7. Interpret each item separately and independently.
8. Work at a fairly high speed through the test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the items, that are important. On the other hand, do not be careless.

IMPORTANT NOTE:

This inventory has been originally designed to evaluate high school students. As a result, you will find that some of the questions seem irrelevant as far as you are personally concerned. Please answer them anyway, but disregard the intent underlying the question. This is because ALL RESULTS are treated by a computer.



Name (print) \_\_\_\_\_

Age \_\_\_\_\_

Occupation \_\_\_\_\_

Hourse of Physical Activity per week \_\_\_\_\_

Express on the scales below what this concept means to you

PHYSICAL ACTIVITY AS A SOCIAL EXPERIENCE

Sports, games and other forms of physical recreation whose primary purpose is to provide opportunities for social participation; that is, to meet new people and continue personal friendships.

As you proceed, always be thinking about the idea or concept in the box

1.

good

1

2

3

4

5

6

7

bad
2.

worthless

1

2

3

4

5

6

7

worthwhile
3.

pleasant

1

2

3

4

5

6

7

unpleasant
4.

sour

1

2

3

4

5

6

7

sweet
5.

nice

1

2

3

4

5

6

7

awful
6.

sad

1

2

3

4

5

6

7

happy
7.

clean

1

2

3

4

5

6

7

dirty
8.

relaxed

1

2

3

4

5

6

7

tense





PHYSICAL ACTIVITY FOR HEALTH AND FITNESS  
Participation in physical activity  
primarily to improve one's health  
and physical fitness.

9.

good

1

2

3

4

5

6

7

bad
10.

worthless

1

2

3

4

5

6

7

worthwhile
11.

pleasant

1

2

3

4

5

6

7

unpleasant
12.

sour

1

2

3

4

5

6

7

sweet
13.

nice

1

2

3

4

5

6

7

awful
14.

sad

1

2

3

4

5

6

7

happy
15.

clean

1

2

3

4

5

6

7

dirty
16.

relaxed

1

2

3

4

5

6

7

tense



PHYSICAL ACTIVITY AS A THRILL BUT INVOLVING SOME RISK  
Physical activities providing, at some risk to the participant, thrills and excitement through speed, acceleration, sudden change of direction, and exposure to dangerous situations.

17.

good

1

2

3

4

5

6

7

bad
18.

worthless

1

2

3

4

5

6

7

worthwhile
19.

pleasant

1

2

3

4

5

6

7

unpleasant
20.

sour

1

2

3

4

5

6

7

sweet
21.

nice

1

2

3

4

5

6

7

awful
22.

sad

1

2

3

4

5

6

7

happy
23.

clean

1

2

3

4

5

6

7

dirty
24.

relaxed

1

2

3

4

5

6

7

tense



PHYSICAL ACTIVITY AS THE BEAUTY IN HUMAN MOVEMENT  
Physical activities which are thought of  
as possessing beauty or certain artistic  
qualities such as ballet, gymnastics or  
figure skating.

25.

good

1

2

3

4

5

6

7

bad
26.

worthless

1

2

3

4

5

6

7

worthwhile
27.

pleasant

1

2

3

4

5

6

7

unpleasant
28.

sour

1

2

3

4

5

6

7

sweet
29.

nice

1

2

3

4

5

6

7

awful
30.

sad

1

2

3

4

5

6

7

happy
31.

clean

1

2

3

4

5

6

7

dirty
32.

relaxed

1

2

3

4

5

6

7

tense



PHYSICAL ACTIVITY FOR THE RELEASE OF TENSION  
The participation (or watching others participate) in physical activities to get away from the problems of modern living; to provide a release from "pent up emotions".

- |     |           |  |            |
|-----|-----------|--|------------|
| 33. | good      | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | bad        |
| 34. | worthless | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | worthwhile |
| 35. | pleasant  | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | unpleasant |
| 36. | sour      | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | sweet      |
| 37. | nice      | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | awful      |
| 38. | sad       | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | happy      |
| 39. | clean     | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | dirty      |
| 40. | relaxed   | <u>1</u> : <u>2</u> : <u>3</u> : <u>4</u> : <u>5</u> : <u>6</u> : <u>7</u> | tense      |





PHYSICAL ACTIVITY AS PROLONGED AND STRENUOUS TRAINING  
Physical activities which require long periods of strenuous and often painful training; which involve stiff competition and demands that the individual give up a number of pleasures for a period of time.

41.

good

1

:

2

:

3

:

4

:

5

:

6

:

7

bad
42.

worthless

1

:

2

:

3

:

4

:

5

:

6

:

7

worthwhile
43.

pleasant

1

:

2

:

3

:

4

:

5

:

6

:

7

unpleasant
44.

sour

1

:

2

:

3

:

4

:

5

:

6

:

7

sweet
45.

nice

1

:

2

:

3

:

4

:

5

:

6

:

7

awful
46.

sad

1

:

2

:

3

:

4

:

5

:

6

:

7

happy
47.

clean

1

:

2

:

3

:

4

:

5

:

6

:

7

dirty
48.

relaxed

1

:

2

:

3

:

4

:

5

:

6

:

7

tense









**B29987**